



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0582; Directorate Identifier 2014-NM-065-AD; Amendment 39-18060; AD 2014-26-09]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2014-03-05, for certain Bombardier, Inc. Model BD-700-1A10 airplanes. AD 2014-03-05 required modification of the air data probes and sensors. This new AD continues to require modification of the air data probes and sensors. This new AD also adds airplanes to the applicability. This AD was prompted by a report that the manufacturer has determined that some completion centers used the heater current/brake temperature monitor unit (HBMU) logic circuit to control the line voltage of the drain mast heaters. We are issuing this AD to detect and correct an unannunciated failure of two pitot static probe heaters, which could affect controllability of the airplane in icing conditions.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 1, 2014 (79 FR 10331, February 25, 2014).

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0582>; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

**FOR FURTHER INFORMATION CONTACT:** Assata Dessaline, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7301; fax 516-794-5531.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2014-03-05, Amendment 39-17742 (79 FR 10331, February 25, 2014).

AD 2014-03-05 applied to certain Bombardier, Inc. Model BD-700-1A10 airplanes. The NPRM published in the Federal Register on August 26, 2014 (79 FR 50880).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-32, dated December 13, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model BD-700-1A10 airplanes. The MCAI states:

The aeroplane manufacturer has determined that some completion centers used the Heater/Brake Monitoring Unit (HBMU) logic circuit to control the line voltage of the drain mast heaters. This same logic circuit is also used to control the line voltage of the number 2 pitot static (PS) probe heater. Since the drain mast heaters are connected in parallel with the number 2 PS probe heater circuit, a number 2 PS probe heater failure may not be detected by the fault monitoring capabilities of the HBMU.

The unannounced failure of two PS probe heaters could adversely affect the aeroplane’s flight characteristics in icing conditions.

This [Canadian] AD mandates a modification to the existing drain mast heater wiring to correct the fault-monitoring capabilities of the HBMU and eliminate the potential dormant failure of the number 2 PS probe heater.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2014-0582-0002>.

## **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (79 FR 50880, August 26, 2014) or on the determination of the cost to the public.

## **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 50880, August 26, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 50880, August 26, 2014).

## **Costs of Compliance**

We estimate that this AD affects 79 airplanes of U.S. registry.

The actions required by AD 2014-03-05, Amendment 39-17742 (79 FR 10331, February 25, 2014), and retained in this AD take about 35 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$0 per product. Based on these figures, the estimated cost of the actions that were required by AD 2014-03-05 is \$2,975 per product.

We also estimate that it will take about 35 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour.

Required parts will cost about \$0 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$235,025, or \$2,975 per product.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on

the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2014-0582>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2014-03-05, Amendment 39-17742 (79 FR 10331, February 25, 2014), and adding the following new AD:

**2014-26-09 Bombardier, Inc.:** Amendment 39-18060. Docket No. FAA-2014-0582; Directorate Identifier 2014-NM-065-AD.

#### **(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2014-03-05, Amendment 39-17742 (79 FR 10331, February 25, 2014).

#### **(c) Applicability**

(1) This AD applies to Bombardier, Inc. Model BD-700-1A10 airplanes, certificated in any category, equipped with any electrical wiring heater current/brake temperature monitor unit (HBMU) installed in accordance with any FAA supplemental type certificate specified in table 1 and table 2 of paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012.

(2) For airplanes on which the applicable service request for product support action (SRPSA) specified in table 3 and table 4 of paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012, has been incorporated, the requirements of this AD have been met.

**(d) Subject**

Air Transport Association (ATA) of America Code 30, Ice and Rain Protection.

**(e) Reason**

This AD was prompted by a report that the manufacturer has determined that some completion centers used the heater current/brake temperature monitor unit (HBMU) logic circuit to control the line voltage of the drain mast heaters. We are issuing this AD to detect and correct an unannounced failure of two pitot static probe heaters, which could affect controllability of the airplane in icing conditions.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Modification**

This paragraph restates the requirements of paragraph (g) of AD 2014-03-05, Amendment 39-17742 (79 FR 10331, February 25, 2014). For airplanes equipped with any electrical wiring HBMU installed in accordance with any FAA supplemental type certificate specified in table 1 of paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012: Within 800 flight hours or 15 months after April 1, 2014 (the effective date of AD 2014-03-05), whichever occurs first, modify the air data probes and sensors, in accordance with the Accomplishment



Instructions of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012.

**(h) New Modification**

For airplanes equipped with any electrical wiring HBMU installed in accordance with any FAA supplemental type certificate specified in table 2 of paragraph 1.A., “Effectivity,” of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012: Within 800 flight hours or 15 months after the effective date of this AD, whichever occurs first, modify the air data probes and sensors, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012.

**(i) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) or (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 700-30-021, dated August 28, 2012, which is not incorporated by reference in this AD.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the

ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-32, dated December 13, 2012, for related information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0582-0002>.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(4) and (l)(5) of this AD.

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on April 1, 2014 (79 FR 10331, February 25, 2014).

(i) Bombardier Service Bulletin 700-30-021, Revision 01, dated November 21, 2012.

(ii) Reserved.

(4) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(5) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on December 22, 2014.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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